RTTY
RYRYRYR

"Collector's Corner Brightens On 19 May 1962"

Every collector has his mementoes or his speciallly prized tokens which are representative of his interest area. Amateur radio operators treasure their QSL cards or other written items that represent the operator's activity in the amateur radio world.

The armed services appreciate the radio amateur's pride and dedication. Because of this appreciation, the Army, Navy, and Air Force sponsor an amateur radio communications program as part of the annual Armed Forces Day festivities. In conjunction with this program, a special one time only QSL card is issued for each military-to-amateur radio contact. These QSL cards are newly-designed, colorful red, white, and blue creations exclusively for the May 19, 1962 Armed Forces Day Communications program.

This amateur radio program also features a CW code and a radioteletypewriter receiving contest. Special messages from the Secretary of Defense will be transmitted during these receiving contests. The text of the two messages is different but amateur operators can, if they have the equipment, copy both messages and obtain two Department of Defense certificates of merit. Each certificate bears the name of the amateur operator and the Secretary of Defense's signature and seal.

The CW code receiving contest is open to any amateur or short-wave listener who can copy International Morse Code at 25 words per minute. The radioteletypewriter (RATT) message is transmitted at 60 words per minute and is open to any amateur radio operator or other individual.

The three programs add up to the possibility of an amateur receiving five mementos consisting of three QSL cards and two certificates of merit. The amateur radio operator may receive a Department of Defense certificate of merit for perfect copy of thfe CW or RATT transmission. If he successfully copies both messages, then he may receive two certificates. Headquarters radio stations of the Army, Navy, and Air Force will operate on-spot frequencies outside the amateur bands. A military-to-amateur contact may be made with an Army station (WAR), a Navy station (NSS), and an Air Force station (AIR). Thus, a QSL card from each contacted military headquarters station will mean that the card collector's corner will be brightened with the red, white, and blue colors.

Over 4,000 amateur-to-militay contacts were made during the 1961 Armed Forces Day Communications Program, and 1,273 certificates of merit were mailed to operators who submitted perfect copy of the CW and RATT messages. These figures are indicative of the many amateur radio operators who have participated and collected, since the program's beginning in 1957, the special commemorative Armed Forces Day QSL cards and certificates of merit.

The complete operating schedules and competition procedures for the 1962 Armed Forces Day Communications Program are ae follows:

Each transmission for the CW and RATT receiving contests will commence at the indicated times with a ten minute CQ call to permit the participants to adjust their equipment. The ten minute CQ will be immediately followed by the message from SECDEF. It is not necessary to copy more than onc station and no extra credit will be given for so doing.

Transcriptions should be submitted "as received". No attempt should be made to correct possible transmission errors. Time, frequency, and call sign of the station copied should be indicated as well as the name, call sign (if any), and address of the individual submitting the copy.

Competition entries should be submitted to the Armed Forces Day Contest, Room 5B960, The Pentagon, Washington, D.C. and postmarked not later than 3 May 1962.

CW Receiving Contest

Time 19 May 1962	*Transmitting Station*	*Frequencies (KCS)*
2003002 (2200 EST)	WAR/AIR (Army & Air Force radio, Wash., DC)	3347, 14405, 20994
2003002 (2200 EST)	NSS (Navy Radio, Wash, D.C.)	3319, 4010, 6970 13975.5
2003002 (1900 PST)	A6USA (Army Radio, San Francisco, Calif.)	6997.5
	NPG (Navy Radio, San Francisco, Calif.)	3319, 7595, 14927.5
	NPD (Navy Radio, Seattle, Wash.)	7455
	AC6AIR (Hamilton AFB, Calif.)	7832.5

RATT Receiving Contest

Time 19 May 1962	*Transmitting Station*	*Frequencies (KCS)*
200335Z (2235 EST)	WAR (Wash., D.C.)	3347, 14405, 20994
	NSS (Wash., D.C.)	3319, 7895, 14480
	AIR (Wash., D.C.)	7915
200335Z (2135 CST)	A5USA (Ft. Sam Houstan, Texas)	5395
	NDS (Great Lakes Ill.)	7455
	AG5FFB (Randolph AFB, Texas)	7305
200335Z (1935 PST)	AC6AIR (Hamiltotn AFB, Calif.)	7832.5
	A6USA (Army Radio San Francisco, Calif.)	6997.5
200345Z (2145 CST)	NDF (New Orleans La.)	7380
	NDW (San Francisco Calif.)	3319, 7375
	NPD (Seattle, Wash.)	7455

Military-to-Amateur Test

Military stations WAR, AIR,and NSS will be on the air from 191500Z (1000 EST) to 200500Z (2400 EST) on 19 May 1962 to contact and test with amateur radio stations. Amateur contacts will be discontinued from 200245Z to 200400Z to allow the Armed Forces Day CW and RATT broadcast competition in accordance with the schedule above.

Station	*Military Frequencies (KCS)*	*Appropriate Amateur Band (megs)*
WAR (Army Radio, Wash., D.C.)	4020 (AM)	3.8 to 4
	4025 (CW)	3.5 to 3.8
	6997.5 (CW)	7 to 7.2
	20994 (CW)	21.1 to 21.25
NSS (Navy Radio Wash., D.C.)	4010 (CW)	3.5 to 3.8
	6970 (CW)	7 to 7.1
	7380 (CW)	7.1 to 7.2
	*13975.5 (CW)	14 to 14.2
		21.1 to 21.25 Novice Calls
	**4012.5 (AM)	3.8 to 4
		7.2 to 7.3
	14385 (SSB)	14.2 to 14.35
	3319 RATT	3.5 to 3.8
	7895 RATT	7 to 7.2
	14480 RATT	14 to 14.2

*The Novice Section of the 15 meter band will be monitored primarily for those new operators who may be unable to work into the 40 and 80 meter bands. Contacts will be acknowledged on 13975.5KCS.

**Operator transmitting on 4012.5 (AM) wil listen in the AM, SSB sections of the 40 and 75 meter bands for AM or SSB stations.

AIR (Air Force Radio, Wash., D.C.)	3397.5 (CW)	3.5 to 3.8
	13995 (CW)	14 to 14.2
	26873 (CW)	21 to 21.25
	*7305 (SSB)	7.2 to 7.3
	*14405 (SSB)	14.2 to 14.35
	7915 (RATT)	7 to 7.2

*Operators transmitting on these frequencies will listen for AM or SSB signals within the appropriate bands.

Military stations will listen for calls from amateurs within the appropriate amateur bands. Contacts will consist of a brief exchange of location and signal report. This is a test of military-to-amateur communications and no traffic handling or message exchange will be permitted.

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington 25, D. C.

In the matter of
Petition to amend Section 12.82 of the Commission's Rules governing the Amateur Radio Service to reflax identification requirements in radio teletype operation.

RM-277

MEMORANDUM OPINION AND ORDER

By the Commission: Commissioner Ford absent.

1. The Commission has before it for consideration a petition filed by the American Radio Relay League, West Hartford, Connecticut, which seeks amendment of Part 12 of the Commission's Rules so as to eliminate the requirement for dual identification when radioteletype emission is being employed.

2. Section 12.82 of the Commission's Rules now requires that, when an emission or mode of communication other than radiotelephone or radiotelegraph is being employed, identification be made in either radiotelephone (A3 emission) or radiotelegraph in the International Morse Code as well as in the emission or mode of communication being employed.

3. The petitioner states that the present dual identification requirement is inefficient and time consuming.

4. The dual identification requirement is necessary for the Commission properly to perform its duties. Amateur stations are not assigned specific frequencies, and as a consequence, the interference resulting from the overlapping of signals makes identification difficult at best. Infraction notices are issued only upon positive identification. Without the dual identification requirement, positive identification would be very difficult for the monitoring stations, and practically impossible for the Commission's mobile units which are not equipped to receive radioteletype transmissions. It appears to the Commission that the advantage to the Amateur service as a whole in having proper and prompt enforcement of the Amateur Rules and Regulations outweighs any possible advantage to be gained from the relaxation of the present identification requirements.

5. Accordingly, in view of the above, IT IS ORDERED, This 21st day of February, 1962, that the petition filed by the American Radio Relay League for the relaxation of the Commission's identification requirements in the Amateur Radio Service, IS DENIED.

FEDERAL COMMUNICATIONS COMMISSION

Ben F. Waple
Acting Secretary

Released: February 26, 1962

ELECTRONIC DISTRIBUTOR FOR 21-A PRINTER

By CECIL CRAFTS, W6ZBV

The Model 21-A Printer is a very compact and quiet machine printing on tape. However, there is no distributor with the machine since it was designed to work with a central machine which supplied this function. The following is the description of an electronic distributor to operate the printer. It is designed to operate the printer 'as is" with no modifications to the 21-A. The unit is basically a coincidence circuit, in that it will produce a current pulse to operate a selector magnet on the 21-A only if there is a mark pulse present at the appropriate time during the transmission of a character, and then, after the selection period is over, transmit a print pulse to the printer, after which the machine finishes the operation. Power supply requirements are fairly light, needing 200 to 250 volts dc at about 40 milliamperes, 6.3V AC at 5.1 amperes, 110 V DC at about 300 milliamperes and 110V AC at 300 milliamperes.

Circuit operation is as follows:

The input signal to the distributor is taken from a polar relay, using the contacts which are closed on "mark." These contacts are connected through a 47K resistor to positive 110V DC, giving a positive 35 volts on mark for gate tube bias and zero gate tube bias on space. However, this signal may also be taken from the output of a terminal unit which will produce about 35 volts positive on mark and either zero or a negative voltage on space into an impedance of 30K.

The negative going "Start" signal is applied through a .005 mfd. capacitor to the input of a "phantastron" trigger circuit consisting of the 7B7 tube and one-half 6H6. This circuit was chosen because it produces a negative pulse on the 7B7 cathode when triggered and then stays cut off for whatever time it is set for with no regard to the input signal during this period. The circuit is adjusted for approximately 150 milliscond time constant so that it remains cut off during the transmission of a single character and yet is ready for operation quickly enough for 60 word per minute tape operation.

The negative pulse from the cathode of the 7B7 is applied through a suitable amplitude limiting resistor to the input of a "single' kick" multivibrator that is set up to trip on a negative pulse only. The output of the multivibrator is a square positive pulse with its length adjusted by the .05 mfd. coupling capacitor and the grid resistor of the second half of the tube. There are seven of these circuits in cascade in the distributor. The first is adjusted for a 33 millisecond time constant center. This time is made variable over an approximate plus or minus 10 millisecond range to allow for signal bias correction. The output of this stage is differentiated to drive the following stage. Since the following stage is set up to trip on a negative pulse, the positive pulse produced by the first multivibrator, coinciding with the start pulse, has no effect, but the negative pulse which arrives 33 milliseconds later when the stage "cuts off" trips the second of the multivibrators. The second stage is identical with the first, with the exception that it is adjusted for a 22 millisecond pulse length to coincide with the 22 millisecond pulse length of the standard teletype pulses. The output of this stage is used in two different ways: The negative going pulse 22 milliseconds later trips another identical 22 millisecond stage. The positive pulse which coincides with the center of the first selector pulse is fed through a 150K resistor to the plate of a shunt diode and also to the grid of a 25L6 whose plate circuit is coupled to the No. 1 magnet on the 21-A. If a No. 1 mark pulse is present on the input as for instance in the letter "Y," the cathode of the diode is 35 volts positive and thus cut off allowing the pulse to drive the 25L6 positive, operating the No. 1 selector magnet. However, if the No. 1 pulse is a space, for instance "R," the diode is left conducting and shorts the pulse output of the multivibrator to ground and no signal is applied to the grid of the No. 1 25L6 and the selector magnet does not operate. The operation proceeds in an identical manner through the multivibrators, gates, and 25L6's or pulses No. 2, 3 and 4. The positive going pulse from the multivibrator that drives the No. 5 magnet is used in the same manner. However, the time constant of this

multivibrator is shortened to about 10 milliseconds since the 22 millisecond time delay is no longer of consequence. Its output drives another similar stage which supplies the No. 6 or "print" pulse to the printer. Its time constant is also adjusted to about 10 milliseconds. The positive pulse from its output is coupled directly to the grid of a 6V6 tube which has a "millisec" relay in its plate circuit. The contacts of the relay apply 110V DC to the No. 6 relay in the printer through a 1000 ohm resistor which limits the relay current to about the required 60 milliamperes. This completes the distributor cycle as the 21-A provides the rest of the timing for the printing operation.

CONSTRUCTION:

There are no apparent critical points in the layout. Straight line layout of the multivibrators is suggested since this tends to lend itself to point wiring. The unit is not particularly critical to RF; however, normal precautions should be followed, particularly with regard to noise suppression in polar relays and the like. The 110V DC power supply should be capable of about 300-400 milliamperes with at least 80 mfd. output filter capacitor since it must supply the power for the printer operation as well as that of part of the distributor.

ADJUSTMENT:

The best method of adjustmant involves the use of the station teletype transmitter, with the printer, if available, coupled in series with the polar relay which drives the distrihutor. The writer permanently installed 250K potentiometers on the chassis to be used as the grid resistors of multivibrators one through five. However, a better method might be to use 50K potentiometers and a suitable value of fixed resistor in scrics for this purpose giving a finer control on the adjustment. After wiring is completed, insert all tubes with the exception of the 6V6 which drives the 6th pulse relay. The 2000 ohm potentiometer in the 25L6 cathode circuit should be turned to the maximum resistance position. About 2 mfd. should be temporarily wired in as the timing capacitor of the 7B7 stage. This is too large a value for normal operation but will allow a safcty factor during the adjustment period. Turn on all filaments and the 200 volt supply to the delay circuits and allow them to warm up. After a warm-up period, turn on the 110 V DC supply.

1. Reduce the value of resistance in the 25L6 cathode circuit until the selector magnets operate. Then increase it until all the magnets have dropped back again. This value may he fixed at this time.

2. Send the letter "E" from the teletype transmitter and adjust the potentiometer in the gird of the first multivibrator stage to the center of the region where the No. 1 selector closes and then drops out each time the key is pressed. The printer should be operated each time a selector operates by touching the sixth pulse relay (located at the right hand rear of the machine) since after a selector has operated once, less energy is required for successive operations unless the printer is cleared in this manner. It also provides a check on the mechanical operation of the printer, as well as a certain amount of personal satisfaction at seeing something on the tape!

3. Now proceed with the adjustment of the next four multivibrators. The letter "A" sent from the teletypes transmitter should operate selector magnets one and two, "U" will operate magnets 1, 2 and 3: "K" operates 1, 2 3 and 4 while the LTRS key will operate all five selectors. At this time, operation of all characters should be tested, operating the 21-A by hand on each character.

4. Replace the 6V6 in its socket, and allow it to warm up. The printer should not follow the operation of the transmitter at a limited speed of operation.

5. Now reduce the value of the timing capacitor in the 7B7 stage of the minimum value which permits proper operation. In the writers case this value was about 0.8 mfd, however it may vary somewhat with parts placement and tolerances. The machine should follow a tape transmission. If it is still slow, reduce the values of the coupling capacitors in the last two multivibrator stages and again adjust the 7B7 timing for minimum value. This completes the adjustment.

RF SUPPRESSION:

For some strange and unknown reason the 21-A is supplied with excellent arc suppression on all contacts except the print circuit. The writer has found that a 2 mfd. capacitor in series with about 150 ohms will give excellent results in the two places where it has been omitted. The first point is the print relay which is located at the right hand rear of the machine behind the sixth pulse relay. The other point is the print contact which is located at the far left hand of the machine. Application of this suppression circuit to these two points should quict the machine in a satisfactory manner, as far as receiver noise is concerned.

The unit which has been described was designed to operate the 21-A with the minimum change in the printer itself. However, it seems probable that with some modification of the printer, considerable simplification in the distrihutor could be made. For instance, if the selector magnets could be rewound to a higher impedance, three 6NS7's could be substituted for the 25L6's and the 6V6 with considerable power saving, as well as tube investment. Work is also proceeding on the problem of eliminating the relays in the printer by substituting thyratrons, since relays, at best, produce radio noise and require periodic adjustment. However, as it is, the 21-A is a very quiet, smooth operating little machine which will produce excellent results for a quite reasonable time and money investment.

See Circuit Diagram on pages 8 and 9.

CLAIMED SCORES OF THE NINTH ANNIVERSARY RTTY SWEEPSTAKES - W6TPJ -

Following is a summary of the claimed total score compiled from the logs received at headquarters up to this time. The official final results will be published in a later issue after all the logs have been received and checked.

STATION

Station	*Sections Worked*	*Claimed Score*
W1KKP	25	2025
W1BGW	17	918
W1JRV	14	560
W1BDI	9	153
W1FSH	5	60
K2SKK	22	1804
W4IAA/2	10	240
W2FAN	9	153
W3CRO	31	3100
WOPHM/4	39	9087
W4EGY	32	4032
K4JXG	24	1682
W4BOC	24	1536
K4KDN	15	570
W6YJG	35	8330
W6AEE	28	2576
W6CG	23	2032
K6OWQ	20	1440
K6MTX	15	630
K6JWQ	7	196
WA6VRQ	2	12
W7ESN	41	10,209
W7PHG	36	5976
W7FEN	36	5724
W8PHG	30	3900
W8KJK	26	2392
W9HJV	25	2300
W9COW	12	468
W9DJE	12	408
W9PFW	6	72
WOYIQ	35	3850
WOPHD	23	2093
KH6IJ	31	2201
KH6ANR	12	360
VE4BJ	28	2800
VE7AIK	11	550

THE LIVINGSTON AMATEUR CLUB

The Livingston Amateur Radio Club has been more active on the two meter net than ever before and just for the records here is a list of the current members. All are more or less active and it is common to have at least six fellows on each night.

Walt Robinson	W2NRQ
Gus Schnetzer	W2ICA
Dick Wells	W2ORX
Ken Hopper	K2VAM
Norm Bernat	K2GYX
Randy Long	W2IHD
Les Hill	W2QHS
John Oldenburg	WA2EKM
Bob Byrne	K2AXM
Bob Mendelson	W2OKO

Others that have called in at various times are: K2KUC and W2OZU, K2SKK, K2DOH, and W2IGX.

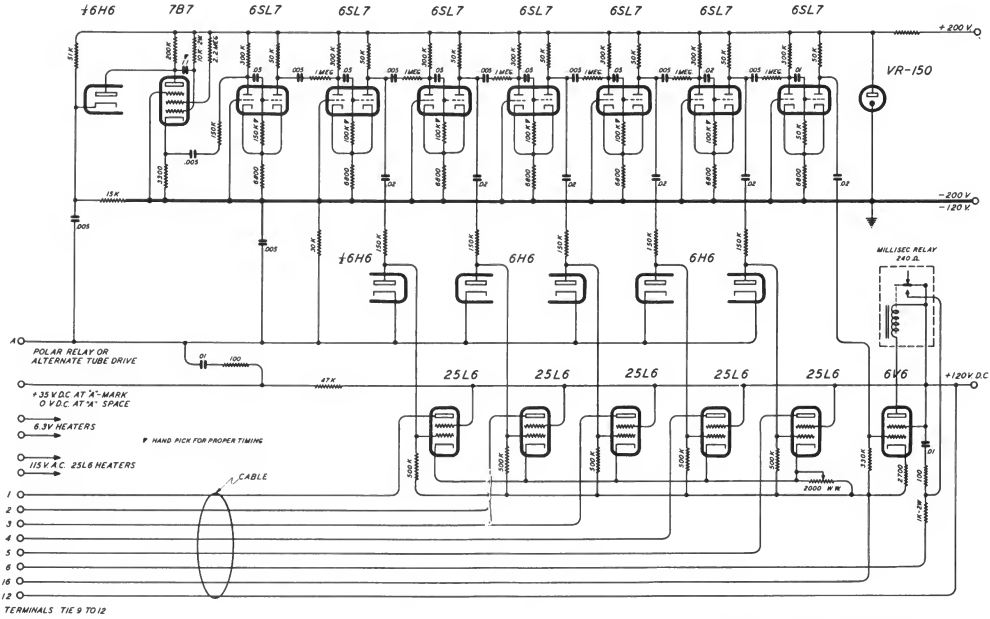
At any rate from the increased size of the list since the last one you published, you can see that the net is growing and maybe some day we will be able to cover the coast.

73,

Bob Mendelson

W2OKO

CIRCUIT DIAGRAM FOR MODEL 21-A ELECTRONIC DISTRIBUTOR



21-A ELECTRONIC DISTRIBUTOR

DX-RTTY

Bud Schultz, W6CG

5226 N. Willmonte Ave., Temple City, California

Hi DX'ers:

The predicted decline in DX activity due to Sun-spot conditions certainly hasn't affected the FSK enthusiasts!! The past month-like the previous thirty days- has brought forth several new countries to our fast growing list of RTTY DX. Europe is still the center of most of the new activity. Ed, K3CIF, reports working ON4HW with excellent copy both ways. This QSO was quickly followed by one between ON4HW and ZS1FD for still another RTTY "first". Wilfried, ON4HW, is using a home brew rig consisting of 6146's with 150 watts input, Home-made superhet, a creed 7-B printer and a Twin City T.U. He will be active every weekend on fifteen so don't pass this one up!! Ed also worked Frank, DJOEK, of Munich. W2UGM also reports DJOEK makes excellent copy at his listening post. Frank is using a Heathkit DX-100, homebrew beam, and has lots of RTTY gear in the shack. DJOEK points out that all German RTTY stations are limited to 14,100-14, 125Kcs and he complains that most W's don't look there. He will be on each weekend about 1700 GMT. OZ5EL is still quite active on 14 Mcs and several have reported fine copy from him. Dick, W2UGM, writes that URIF continues to "Bomb" the RTTY channels with his tremendous signal. Shank, GM8FM, says he prints lots of East Coast Typers but so far not many QSO's. He's planning on another holiday in Spain and is hoping to take a printer along in the hope of getting something started there.

Bill, G3CQE, paid a visit to G3BXI's shack and was very impressed by the fine RTTY set-up that Jim is using. Bill has a sked with PAOAA for passing RTTY news to the VERON gang for use in their Tape transmissions (reported here last month). Here's a quote from G3CQE's letter: "There are a pretty fair number of G's sculling around on RTTY now including such as G3BXI, G3GNR, G3IVP, GM3BST (in Scotland now) G2RF, G3FHL, G3BDI. G2FUD is airborne now and other newcomers are G2DSF and G6CW. RTTY is going nicely at present, Bud." Bils says that anyone interested in trying a QSO with the UK on the 3.5 MC band should set up a sked ahead of time in order to avoid QRM from the many European commercials on this band. The usual UK RTTY freq for inter G working is 3755Kc –plus or minus 4Kcs – and the best time for the East Coast is around 0800 GMT and later for the Midwest and West Coast. Some of you chaps with good wires for eighty meters should give this idea a fling – it should prove to be quite a challenge.

I should have a rubber stamp made that reads "Henry, ZS1FD, continues to boil into the States every day" because it seems like I use it every month but that's the story in a nutshell. If the band is open – ZS1FD is coming thru! His sked with Nosey, KH6IJ, still hasn't born any fruit but I'll make book that it will be on the record by the time this gets into print. Henry reports that Bill, ZS6AR, has ordered a Model 26 from the States and is all set to go when it arrives. According to K3CIF, Brother Phillip at EL6E is all set to go; so now is the time to start watching for him!!

Lyle, WOFQW, sent me a message received direct from PY2BCD reporting that Brazil is once again on the active list. Lyle tells me that PY1KU was responsible for getting PY2BCD on FSK and the copy indicates that WOFQW was the first RTTY contact. The QSO was made on 21,090 at 2030 GMT. He will also be on 14Mcs. Erosa, XE1BI, is helping Luis, XE2IL, to get his 200V and Model 26 on FSK and the latest reports are very encouraging. XE2IL has a beautiful signal and should make quite a ripple on RTTY. OA4BR is said to be active but nothing definte has come across my desk on this one. Anyone confirm it?

Both Eric, VK3FK, and Bruce, ZL1WB, write in to tell me that conditions in the South Pacific have been just about nil. Eric reports that the only three RTTY signals he heard during the Feb. SS contest were KL7MZ, WONFA and W6CG (the last named, by Moon bounce– no doubt) and couldn't raise any of 'em. He says he's still listening and hoping and figures the band will get better in a couple of months. Eric has been thru these droughths before and doesn't discourage too easily. The report from Bruce is identical to Erics except he didn't hear W6CG which would seem to indicate that he is getting a better shake than Eric.

Ed Clammer, K3CIF, and Frank White, W3PYW, have volunteered to handle traffic for the Mercy Ship, S.S. Hope, on it's World Wide goodwill tour. The ship is equipped with Ham RTTY gear and certainly merits all the aid we can give. Be on the lookout for this one!!

RTTY Hdq. was paid a surprise visit by Ex-KR6AK, ole Cas of RTTY-DX fame. Most of the early DX'ers will remember Cas as one of the first consistent DX stations on FSK. This "eyeball QSO" went on into the wee small hours as we reminisced about the "good old days". Cas is still working for Uncle Sam in an Airborne Unit and has covered a lot of ground since leaving Naha. His description of eating boa constrictor meat while he was on a tour of duty in the Central American Jungle was the high point of the evening! There is a good possibility his next QTH will be Viet-Nam and he promises that if there is any possibility of getting permission he will have RTTY on from there. On past performance I can assure you that this is no idle talk!! At present Cas is stationed at Ft. Bragg and signs WONMH/4.

Award certificates have been mailed to the top ten winners of the World-Wide SS Contest and the committee is about to start on arrangements for the next wing ding. If you have any ideas, gripes, or suggestions now is the time to get them considered. Because the committee is spread over four Continents it takes a bit of time to get things talked over. If you have any valid reason why we should not use GMT in the next contest; write it one side of a piece of note paper, burn the paper and send the ashes to the QTH at the top of this column.

Thanks for the use of the hall and keep your powder dry! CU next month.

73

Bud Schultz, W6CG

PS: Monies for purchase of a trophy for the next world Wide RTTY SS have been received from four amateurs already. So send your ideas on what type of trophy, you think would be appropriate. Ed-

WAC
RTTY
The RTTY Society of Southern California hereby certifies that
CONGRATULATIONS
owner and operator of
has this day submitted to a satisfactory evidence of having conducted two way radio teleprinter communication with other amateur stations in each of the six recognized continental areas of the world—North America, South America, Europe, Asia, Africa and Oceania. This certificate is issued in recognition of his excellent performance and he is, in addition, authorized to include the letters W.A.C. RTTY (Worked all Continents Radio Teleprinter) on his amateur cards and correspondence
Done at RTTY Headquarters, Arcadia, California U.S.A.

NORTHERN OHIO TELEPRINTER SOCIETY

The "Northern Ohio Teleprinter Society" which was formed by W8ZEP in November of 1960, is still in existence. The organization is now gaining a little momentum due to increased interest in the area. We are not incorporated at the present time, and our main objective at the moment is to develop greater interest in this phase of amateur radio, and to exchange ideas, and offer assistance in the RTTY field. We have 25 members on our roster as of now. Of these 25 members the following are active on RTTY:

W8LEX, W8ZEP, K8CTI, W8NZI, W8HYG, K8NPH, W8KJK, W8EMO, W8GQO, W8BPY, W8MMD, W8INXL, and W8WAJ.

Most of the other members have printers, either model 26's or Model 15's, in working order. Included in our group is Dave Goodman "world's only RTTY SWL" (see "RTTY" Aug. 1958, Page 4). Dave, however, has competition for his title as we also have another RTTY SWL, Harold Haar, who has been printing for sometime now, using a model 26 and a transistorized T. U. of his own design.

We would like to have the "NOTS" added to your listing of RTTY societies.

We have a weekly net operating FSK on 29.2 mcs. on Wednesday evenings at 2000 hours EST. The NCS of the net is W8LEX (Harry).

There have been some pro's and con's regarding the legality of FSK on 10 meters. As far as we have been able to determine, FSK is legal above 29.0 mcs. Do you have any information regarding this situation?

Our reason for using 29.2 mcs. FSK is due to the almost complete lack of QRM on this frequency in this area, and because most of us have no six meter or two meter gear.

There are some disadvantages in using FSK at this comparatively high frequency, the most prevelant of which is VFO frequency instability. This can, of course, be alleviated by using A.F.C. in the receivers.

Our monthly meetings are held on the 3rd Friday of each month, in the Pathology building of Metropolitan General Hospital, here in Cleveland. This facility was obtained through Dr. T. Gavan, K8PZM, who is a member of the group, and an avid RTTY man. Doc. Gavan (Tom) has a model 26 going in fine style, and only has to find time to install a FSK modulator in his rig to get on the air with RTTY.

This month, (March) in addition to our regular meeting, we are having a field trip through the teleprinter facilities of the F. A. A. agency at Cleveland Hopkins Airport.

At the last meeting of the Cleveland Area Council of Radio Clubs which was held Feb. 20, 1962, Al Panzer, W8ZEP, was appointed assistant E. C. for RTTY operations in this area.

Al has some very definite ideas for increasing and maintaining interest in RTTY. We will pass these ideas on to you as soon as Al gives us a briefing on them.

73

Army

Armand J. Gimbel, W8KJK
2312 Fairdale Ave.
Cleveland 9, Ohio
Chairman, NOTS

It is with deep regret that RTTY learned of the death of Amos Burkett, W5JBW of Lake Charles, Louisiana. Amos had a heart attack at work, at the Cities Service Refinery. He was a well known early RTTY operator, and attended several of the national conventions. Ed-

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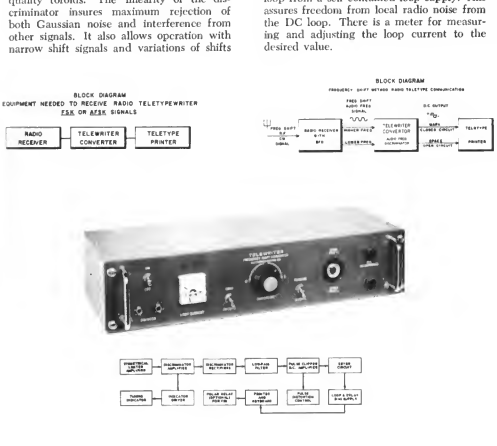
ALLTRONICS-HOWARD TELEWRITER CONVERTER - MODEL K

PURPOSE: The Telewriter Converter Model K is used as a part of a radio receiving system for frequency shift signals and converts audio tones from the output of a receiver into DC pulses. These pulses may be used to operate a teleprinter or other devices requiring DC pulses.

DESCRIPTION: The Model K Converter accepts audio frequency-shift tones with a center frequency of 2550 cps and shifts from 100 to 1000 cps. The incoming signals are fed through a specially designed symmetrical limiter which is free of the usual DC level shift. The limiter removes any amplitude variations prior to discriminator. The limited signals are applied to a linear discriminator which utilizes high quality toroids. The linearity of the discriminator insures maximum rejection of both Gaussian noise and interference from other signals. It also allows operation with narrow shift signals and variations of shifts as well as drift of the center frequency. The output of the discriminator drives a low pass filter which removes the effect of beat notes due to interference and sharp impulse noise. The filtered DC pulses are approximately 100 volts peak-to-peak. These large pulses are clipped by a symmetrical clipper which uses only the center 4 volts of the pulses, providing exceptional "cleaning-up" of noisy signals. Under very poor conditions or for severely distorted signals, a panel control allows the clipped portion of the pulse to be moved up or down on the pulses to obtain the best signal. The correctly shaped pulses than operate a vacuum tube keyer which gives direct-magnet operation of the teleprinter loop from a self-contained loop supply. This assures freedom from local radio noise from the DC loop. There is a meter for measuring and adjusting the loop current to the desired value.



ADDITIONAL FEATURES OF THE MODEL K:

Extremely simple operation with no adjustments needed for normal operation.

An effective tuning indicator for rapid, easy tuning of FSK signals. The indicator also provides a quick method of adjusting transmitter frequency shift.

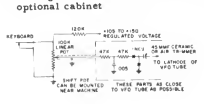
Standby switch for quieting printer while tuning. Rear connection for send-receive relay to allow use of local loop in conjunction with polar relay for transmitting FSK.

Optional built-in polar relay for clean FSK with local copy. Also optional FSK driver circuit available.

Circuit design optimized to provide efficient operation under high interference level from CW, phone and FSK signals.

TECHNICAL DATA, Telewriter Model K

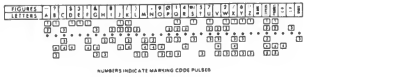
Input Impedance: 600 ohms
Input Level: -33 dbm to 30 dbm (ref 1 mw.)
Input Frequency Shift Limits: 100 to 1000 cps frequency shift
Output: Neutral DC pulses of 60 ma in 0 to 5000 ohm external load with one side grounded.
Keying Speed: 100 wpm max. (higher speeds on special order)
Metering: Panel meter; 0 to 100 ma.
Tuning Indicator: Dual electron indicator tube.
Controls:
  Front Panel:
    Power switch
    Shift reverse switch
    Receiver-standby switch
    Distortion correction control
    Tuning indicator adjustments
  Internal Adjustments:
    Loop current
    Balance control
    Bias current adjustment for OPTIONAL polar relay
Mounting: Standard WE 19" relay rack or optional cabinet



Chassis & Panel: Aluminum panel 19" wide, 4" high. Gray enamel finish. Screw holes 3" on centers. Steel chassis, cadmium plated, 16 3/4" wide, 3-3/4" high, 7-1/2" deep. Weight complete 10 lbs.
Cabinet: Steel, 19" wide, 4" high, 8" deep. One piece. Vents in rear and bottom. Rubber feet. Weight 7 lbs.
Power Requirements: 115 volts, 60 cps; 50 watts max.
Tube Complement:
  1-12AX7 Amplifier-limiter
  1-12AX7 Discriminator driver
  1-12AX7 Pulse clipper and DC amplifier
  1-6W6 Keyer tube
  1-12AX7 Tuning indicator driver
  1-6AF6 Electron tuning indicator
  1-6X4 Power supply rectifier
  1-Silicon diode loop supply rectifier
Prices:
  Model K for Rack Mounting . . $189.00
  Cabinet 14.50
  Polar Relay 24.50

NOTE: UPPER CASE H MAY BE STOP OR #

TELETYPE CODE
A TYPICAL CODING ARRANGEMENT



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